Contents to volume 249

Discussion Letter

Structural model of vinculin: correlation of amino acid sequence with electron-microscopical shape (FEB 07170) *K. Beck* 1

Commentary

Comparative analysis of viral cysteine protease structural models (FEB 07158) *J.F. Bazan, R.J. Fletterick* 5

Research Letters

Correlation among the proton charges and molecular masses of myosin subunits (FEB 07153) *J.-J. Béchet, A. d'Albis* 8

ATP synthesis and pyrophosphate-driven proton transport in tonoplast-enriched vesicles isolated from *Catharanthus roseus* (FEB 07152) *A. Dupaix, G. Johannin, B. Arrio* 13

Effect of DNA supercoiling on in vitro transcription from the adenovirus early region 4 (FEB 07130) *H. Handa, H. Watanabe, Y. Suzuki, S. Hirose* 17

IS*421*, a new insertion sequence in *Escherichia coli* (FEB 07154) *S. Sato, Y. Nakada, A. Shiratsuchi* 21

Regulation of interleukin-6 receptor expression in human monocytes and hepatocytes (FEB 07156) *J. Bauer, G. Lengyel, T.M. Bauer, G. Acs, W. Gerok* 27

Tissue-specific expression of profilin (FEB 07131) *F. Buß, B.M. Jockusch* 31

Characterization and expression of the rat heart sarcoplasmic reticulum Ca^{2+}-ATPase mRNA (FEB 07147) *A.-M. Lompre, D. de la Bastie, K.R. Boheler, K. Schwartz* 35

Synthesis of the vasoconstrictor peptide endothelin in kidney cells (FEB 07133) *T. Kosaka, N. Suzuki, H. Matsumoto, Y. Itoh, T. Yasuhara, H. Onda, M. Fujino* 42

New fluoroketones as human renin inhibitors (FEB 07132) *C. Tarnus, M.J. Jung, J.-M. Rémy, S. Baltzer, D.G. Schirlin* 47

Three actin-binding proteins are developmentally regulated in rat liver plasma membranes (FEB 07149) *M. Keresztes* 51

The release of nitric oxide from denitrifying cells of *Paracoccus denitrificans* by an uncoupler is the basis for a new oscillator (FEB 07150) *I. Kučera* 56

Enzymatic and immunological detection of a G-protein in *Halobacterium halobium* (FEB 07160) *A. Schimz, K.-D. Hinsch, E. Hildebrand* 59

Role of the carboxyl-terminal region of the PVP protein (F_0I subunit) in the H^+ conduction of F_0F_1 H^+-ATP synthase of bovine heart mitochondria (FEB 07122) *S. Papa, F. Guerrieri, F. Zanotti, J. Houštěk, G. Capozza, S. Ronchi* 62

$\alpha_3\beta_3$ complex of thermophilic ATP synthase: Catalysis without the γ-subunit (FEB 07180) *Y. Kagawa, S. Ohta, Y. Otawara-Hamamoto* 67

On the role of tryptophan as a superexchange mediator for quinone reduction in photosynthetic reaction centers (FEB 07164) *M. Plato, M.E. Michel-Beyerle, M. Bixon, J. Jortner* 70

Resolution of a long lived fluorescence component from D1/D2/cytochrome *b*-559 reaction centres (FEB 07163) *B. Crystall, P.J. Booth, D.R. Klug, J. Barber, G. Porter* 75

Detection of calcium binding by photosystem II polypeptides immobilised onto nitrocellulose membrane (FEB 07161) *A.N. Webber, J.C. Gray* 79

In vitro translation of cytosolic and peroxisomal epoxide hydrolase and catalase on liver polyribosomes from untreated and clofibrate-treated C57Bl/6 mice (FEB 07171) *V. Joste, J. Meijer* 83

αB-Crystallin is expressed in kidney epithelial cell lines and not in fibroblasts (FEB 07165) *C.N. Nagineni, S.P. Bhat* 89

[^{14}C]Acetate incorporation into glycerolipids from cauliflower proplastids and sycamore amyloplasts (FEB 07162) *C. Alban, A.-J. Dorne, J. Joyard, R. Douce* 95

Purification of squalene-2,3-epoxide cyclases from cell suspension cultures of *Rabdosia japonica* Hara (FEB 07169) *I. Abe, Y. Ebizuka, S. Seo, U. Sankawa* 100

Activation of chloride channels in the plasmalemma of *Nitella syncarpa* by inositol 1,4,5-trisphosphate (FEB 07167) *O.M. Zherelova* 105

Different roles of IP_4 and IP_3 in the signal pathway coupled to the TRH receptor in microinjected *Xenopus* oocytes (FEB 07172) *S. Mahlmann, W. Meyerhof, J.R. Schwarz* 108

Stereospecific assignment of the methyl ^{1}H NMR lines of valine and leucine in polypeptides by nonrandom ^{13}C labelling (FEB 07168) *H. Senn, B. Werner, B.A. Messerle, C. Weber, R. Traber, K. Wüthrich* 113

The primary structure of rat ribosomal protein L34 (FEB 07157) *Y. Aoyama, Y.-L. Chan, I.G. Wool* 119

Complete sequence of the gene encoding the largest subunit of RNA polymerase I of *Trypanosoma brucei* (FEB 07143) *W. Jess, A. Hammer, A.W.C.A. Cornelissen* 123

Proton-motive-force-driven sucrose uptake in sugar beet plasma membrane vesicles (FEB 07173) *R. Lemoine, S. Delrot* 129

Notes to Authors 135

FEBS News

FEBS Officers/General Secretaries 137

Research Letters

Subtype-specific increase in G-protein α-subunit mRNA by interleukin 1β (FEB 07181) *R.T. Lee, T.A. Brock, C. Tolman, K.D. Bloch, J.G. Seidman, E.J. Neer* 139

The inotropic effect of endothelin-1 on rat atria involves hydrolysis of phosphatidylinositol (FEB 07182) *P. Vigne, M. Lazdunski, C. Frelin* 143

Published by Elsevier Science Publishers B.V. (Biomedical Division)

00145793/89/$3.50 © 1989 Federation of European Biochemical Societies

The role of charge neutralization and cooperative binding of linker histone in the higher-order structure of chromatin (FEB 07129) *F. Watanabe* 147
Sequence similarity between protein B and human apolipoprotein A-IV (FEB 07174) *J. Rühlmann, V. Kruft, B. Wittmann-Liebold, F.-J. Fehrenbach* 151
o-Quinone/quinone methide isomerase: a novel enzyme preventing the destruction of self-matter by phenoloxidase-generated quinones during immune response in insects (FEB 07188) *S.J. Saul, M. Sugumaran* 155
Oscillating enzyme-bound NADH in glycolysis (FEB 07175) *Z. Yuan, S.C. Müller, B. Hess* 159
Cytochrome *o* (*bo*) is a proton pump in *Paracoccus denitrificans* and *Escherichia coli* (FEB 07176) *A. Puustinen, M. Finel, M. Virkki, M. Wikström* 163
Location of phosphorylation site and DNA-binding site of a positive regulator, OmpR, involved in activation of the osmoregulatory genes of *Escherichia coli* (FEB 07177) *M. Kato, H. Aiba, S. Tate, Y. Nishimura, T. Mizuno* 168
Conformational changes of a mitochondrial precursor protein on binding to phospholipid vesicles and SDS micelles: A circular dichroism and fluorescence spectroscopy study (FEB 07159) *T. Endo, M. Oya* 173
Synthesis of an affinity ligand ('UPHIT') for in vivo acylation of the κ-opioid receptor (FEB 07178) *B.R. de Costa, L. Band, R.B. Rothman, A.E. Jacobson, V. Bykov, A. Pert, K.C. Rice* 178
8-Br-cAMP inhibits the transient expression of firefly luciferase (FEB 07179) *G.T. Coker, iii, L. Vinnedge, K.L. O'Malley* 183
The cysteines in position 1 and 86 of rat interferon-α_1 are indispensable for antiviral activity (FEB 07185) *R.A. Spanjaard, J.A.J. van Himbergen, J. van Duin* 186
Receptor and effector interactions of G_s: Functional studies with antibodies to the α_s carboxyl-terminal decapeptide (FEB 07184) *W.F. Simonds, P.K. Goldsmith, C.J. Woodard, C.G. Unson, A.M. Spiegel* 189
Evidence for a P_{O_2}-sensitive K^+ channel in the type-I cell of the rabbit carotid body (FEB 07187) *M.A. Delpiano, J. Hescheler* 195
Biphasic increase in intracellular calcium induced by platelet-activating factor in macrophages (FEB 07183) *C. Randriamampita, A. Trautmann* 199
Forskolin stimulates pinealocyte cGMP accumulation: Dramatic potentiation by an α_1-adrenergic → $[Ca^{2+}]_i$ mechanism involving protein kinase C (FEB 07191) *A.K. Ho, C.L. Chik, D.C. Klein* 207
Oligodeoxynucleotide analogs with 5'-linked anthraquinone (FEB 07194) *K. Mori, C. Subasinghe, J.S. Cohen* 213
Magainin 2 amide and analogues: Antimicrobial activity, membrane depolarization and susceptibility to proteolysis (FEB 07192) *D. Juretić, H.-C. Chen, J.H. Brown, J.L. Morell, R.W. Hendler, H.V. Westerhoff* 219
Immunological evidence for a relationship between the dendrotoxin-binding protein and the mammalian homologue of the *Drosophila Shaker* K^+ channel (FEB 07190) *H. Rehm, R.A. Newitt, B.L. Tempel* 224
Expression of RNA transcripts for the postsynaptic 43 kDa protein in innervated and denervated rat skeletal muscle (FEB 07189) *S.C. Froehner* 229
Glucose-induced synthesis of diacylglycerol de novo is associated with translocation (activation) of protein kinase C in rat adipocytes (FEB 07186) *T. Ishizuka, J. Hoffman, D.R. Cooper, J.E. Watson, D.B. Pushkin, R.V. Farese* 234
Detection of immunoreactive endothelin in plasma of hemodialysis patients (FEB 07193) *K. Totsune, T. Mouri, K. Takahashi, M. Ohneda, M. Sone, T. Saito, K. Yoshinaga* 239
A synthetic peptide analog of the putative substrate-binding motif activates protein kinase C (FEB 07195) *C. House, P.J. Robinson, B.E. Kemp* 243
Exon-intron organization, expression, and chromosomal localization of the human motilin gene (FEB 07196) *H. Yano, Y. Seino, J. Fujita, Y. Yamada, N. Inagaki, J. Takeda, G.I. Bell, R.L. Eddy, Y.-S. Fan, M.G. Byers, T.B. Shows, H. Imura* 248
Decrease in CuZn-superoxide dismutase mRNA level during differentiation of human monocytic and promyelotic leukemia cells (FEB 07197) *H. Saito, T. Kuroki, K. Nose* 253
Phospholipase C and phospholipase A_2 are involved in the antiviral activity of human interferon-α (FEB 07199) *G. Premecz, A. Markovits, G. Bagi, T. Farkas, I. Földes* 257
Hyperammonemia decreases body fat content in rat (FEB 07200) *M.D. Miñana, V. Felipo, R. Wallace, S. Grisolia* 261
Two isozymes of PKC found in HL-60 cells show a difference in activation by the phorbol ester TPA (FEB 07208) *I. Beh, R. Schmidt, E. Hecker* 264
Expression of human 5-lipoxygenase cDNA in *Escherichia coli* (FEB 07201) *M. Noguchi, T. Matsumoto, M. Nakamura, M. Noma* 267
Neuropeptide Y inhibits vasoactive intestinal peptide- and dopamine-induced cyclic AMP formation in human Ewing's sarcoma WE-68 cells (FEB 07202) *F. van Valen, E. Keck, H. Jürgens* 271
Localization and characterization of the glycosylation site of human pancreatic elastase 1 (FEB 07203) *P. Wendorf, R. Geyer, A. Sziegoleit, D. Linder* 275
Structure of the 5'-external transcribed spacer of the human ribosomal RNA gene (FEB 07206) *M.-H. Renalier, S. Mazan, N. Joseph, B. Michot, J.-P. Bachellerie* 279
Time-resolved ultrafast blue-shifted fluorescence from pea chloroplasts (FEB 07209) *S.W. McCauley, E. Bittersmann, A.R. Holzwarth* 285
Transforming growth factors β1 and β2 as well as milk growth factor decrease anti-CD3-induced proliferation of human lymphocytes without inhibiting the anti-CD3-mediated increase of $[Ca^{2+}]_i$ and the activation of protein kinase C (FEB 07211) *M. Stoeck, H. Sommermeyer, S. Miescher, D. Cox, S. Alkan, M. Szamel* 289
The constituents of storage granules in the dermal glands of *Xenopus laevis*: Structure of a basic polypeptide deduced from cloned cDNA (FEB 07213) *H. Berger, G. Kreil* 293
Expression of high- and low-affinity epidermal growth factor receptors in human hepatoma cell lines (FEB 07212) *M. Clementi, A. Festa, I. Testa, P. Bagnarelli, G. Devescovi, G. Carloni* 297

Stimulation of phosphoinositide hydrolysis via class I antigen-specific recognition in murine cardiac tissue (FEB 07215) *G.A. Cremaschi, L. Sterin-Borda* 302
Carbonic anhydrase II is induced in HL-60 cells by 1,25-dihydroxyvitamin D_3: a model for osteoclast gene regulation (FEB 07218) *L. Hillstrom Shapiro, P.J. Venta, Y.-S.L. Yu, R.E. Tashian* 307
Transcriptional activity is inducible in the cauliflower mosaic virus 35 S promoter engineered with the heat shock consensus sequence (FEB 07220) *M. Pietrzak, M. Burri, J.-J. Herrero, K. Mosbach* 311
The amino-terminal sequences in the pro-α and -β polypeptides of human lysosomal β-hexosaminidase A and B are retained in the mature isozymes (FEB 07221) *M. Hubbes, J. Callahan, R. Gravel, D. Mahuran* 316
Identification of the bovine brain Ins(1,4,5)P_3 5-phosphatase after SDS-polyacrylamide gel electrophoresis (FEB 07222) *M. Lemos, J.E. Dumont, C. Erneux* 321
Two components of type III protein kinase C with different substrate specificities and a phospholipid-dependent but Ca^{2+}-inhibited protein kinase in rat brain (FEB 07207) *L. Buday, G. Mészáros, G. Farkas, J. Seprődi, F. Antoni, A. Faragó* 324
Identification of an active-site residue in subunit S1 of pertussis toxin by photocrosslinking to NAD (FEB 07205) *S.A. Cockle* 329
Amino acid substitutions in mitochondrial ATP synthase subunit 9 of *Saccharomyces cerevisiae* leading to venturicidin or ossamycin resistance (FEB 07210) *M. Galanis, J.R. Mattoon, P. Nagley* 333
Biochemical and antigenic characterization of CD45 polypeptides expressed on plasma membrane and internal granules of human neutrophils (FEB 07214) *R. Pulido, P. Lacal, F. Mollinedo, F. Sánchez-Madrid* 337
Induction of tumour hypoxia by a vasoactive agent: A combined NMR and radiobiological study (FEB 07216) *J.F. Dunn, S. Frostick, G.E. Adams, I.J. Stratford, N. Howells, G. Hogan, G.K. Radda* 343
Detection and localization of a new enzyme catalyzing the β-aryl ether cleavage in the soil bacterium (*Pseudomonas paucimobilis* SYK-6) (FEB 07217) *E. Masai, Y. Katayama, S. Nishikawa, M. Yamasaki, N. Morohoshi, T. Haraguchi* 348
Activation of matrix metalloproteinase 3 (stromelysin) and matrix metalloproteinase 2 ('gelatinase') by human neutrophil elastase and cathepsin G (FEB 07223) *Y. Okada, I. Nakanishi* 353
Calcitonin gene-related peptide-1 (CGRP-1) is a potent regulator of glycogen metabolism in rat skeletal muscle (FEB 07224) *B. Leighton, E.A. Foot, G.G.J.S. Cooper, J.M. King* 357
Evidence for a factor promoting the conversion of VWF from low and intermediate to high molecular mass polymers on the platelet membrane (FEB 07225) *A. Ferri, S. Guerra, D. Gemmati, P. Chiozzi* 362
Transcriptional characteristics of in vitro assembled chromatin assayed by microinjection into *Xenopus laevis* oocytes (FEB 07226) *H. Steinbeißer, A. Hofmann, P. Oudet, M.F. Trendelenburg* 367
The role of ubiquinones in the regulation of lipid metabolism in rat thymocytes (FEB 07229) *E.G. Novoselova* 371
The gate of mitochondrial porin channel is controlled by a number of negative and positive charges (FEB 07230) *T.A. Mirzabekov, L.N. Ermishkin* 375
Effective method for obtaining long nucleotide chains on partially complementary templates: Processed bovine γ-interferon gene obtained from human γ-interferon gene (FEB 07231) *V.M. Rostapshov, I.P. Chernov, T.L. Azhikina, A.M. Borodin, E.D. Sverdlov* 379
Homology between surface protein antigen genes of *Streptococcus sobrinus* and *Streptococcus mutans* (FEB 07233) *I. Takahashi, N. Okahashi, C. Sasakawa, M. Yoshikawa, S. Hamada, T. Koga* 383
Threonine phosphorylation is associated with mitosis in HeLa cells (FEB 07227) *J. Zhao, J. Kuang, R.C. Adlakha, P.N. Rao* 389
Binding properties of T4 gene 32 protein fragments carrying partially cleaved terminal domains (FEB 07234) *J.R. Casas-Finet* 396
Construction of a heat-inducible chimaeric gene to increase the cytokinin content in transgenic plant tissue (FEB 07236) *T. Schmülling, S. Beinsberger, J. De Greef, J. Schell, H. Van Onckelen, A. Spena* 401
Transport of influenza virus envelope proteins from the Golgi complex to the apical plasma membrane in MDCK cells: pH-controlled interaction with a cycling receptor is not involved (FEB 07241) *P.U. Daniels-Holgate, J.M. Edwardson* 407
Muscarinic receptor modulation of glucose-induced electrical activity in mouse pancreatic B-cells (FEB 07239) *R.M. Santos, E. Rojas* 411

Author Index 418

Table of Contents 424

Notes to Authors 427